Tronox Mine Sites R6/R9
Highways 509 and 605
Cibola and McKinley Counties, New Mexico
Daily Report

Date: September 16, 2015

Team:
Patrick Buster
Yellow Jacket Drilling

Health and Safety:

1. Weston team safety topics included physical hazards including slips, trips, falls, and heavy haul truck traffic, and biological hazards, and hydration.

Activities Completed:

1. NKD-04 was advanced 16 feet into the Brushy Basin member of the Morrison Formation. The depth of the borehole is 290'. A small band of sandstone was observed from 270 – 274' (unsure, as only about 1' of material was recovered). This sandstone was medium grained and well sorted, however it didn't react with hydrochloric acid like the Dakota Sandstone generally does. Circulation was regained and the borehole was flushed with mud and water for 45 minutes to assist in removing cuttings from the borehole.
    a. 0 – 26 Feet – Alluvium – Silty Sand with sandstone fragments at depth.
    b. 26 – 66 Feet – Sandstone – Gray/Light Gray and Yellowish Brown, medium to coarse grained grading to fine grained. No HCl reaction.
    c. Conductor casing set from 0 – 28 feet.
    d. 66 – 77 – Siltstone – Moderate gray, very fine grained, very dense.
    e. 77 – 110 – Mancos Shale
    f. 110 – 124 – Siltstone – dark gray, very fine grained, very dense.
    g. 124 – 144 – Sandstone – gray, cemented, very fine grained.
    h. 144 – 145 – Siltstone – dark gray to black, becoming mudstone, very dense.
    i. 145 – 156 – Sandstone – dark gray to black, very fine grained, very hard, very dense, interbedded.
    j. 156 – 176 – Siltstone – dark gray, very hard, very dense, mildly reacts with HCL.
    k. 176 – 196 – Mancos Shale – dark gray to black, cemented, very dense.
    l. 196 – 202 – Sandstone – gray to tan, fine to medium grained, no HCL reaction.
    m. 202 – 203 – Shale, black, brittle
    n. 203 – 209 – Sandstone with interbedded mudstone, gray to black, very fine grained.

o. 209 – 216 – Mancos Shale, dark grey, brittle, sand present on the top two feet.
p. 216 – 226 – Not recovered
q. 226 – 246 – Sandstone, very fine grained, cemented, no HCL reaction, alternating black and gray bands.
r. 246 – 270 – Mancos shale, very dense, no HCL reaction.
s. 270 – 274 (?, one foot of recovery) – Sandstone, medium grained, well sorted, tan, cemented, no HCL reaction.
t. 274 – 290 – Brushy Basin member of Morrison Formation. Light green mudstone, very hard, dense. EOB at 290'.

2. Drillers began preparing for demobilization.
3. Spoke with Doug Murray on-site..

Planned Activities for September 16, 2015:

1. Locate alternate location for NKD-05, as it falls directly on top of two crossing faults.
2. Yellow Jacket will prepare to move to NKD-05.
3. Demobilize at noon.

Schedule:

1. Demobilize tomorrow afternoon. Weston will remobilize the morning of 9/21 to meet Jet West and run geophysics down NKD-03 and NKD-04. Yellow Jacket will remobilize the evening of 9/21. The next demobilization day is 10/1.

Open Items:

1. (b) (6) [redacted] requested that we sample three of her other wells.
2. Weston will need to need to coordinate sampling Rio Algom wells MW-35-9 and MW35-9. Due to miscommunication these wells were sampled ahead of the originally \proposed schedule. MW35-9 and MW35-9 are scheduled to be sampled again in November by Rio Algom. Weston will plan to collect groundwater samples at this time.
3. Need to discuss with landowners about property impact while drilling deep wells, as a pad is built and ponds have to be dug out to store mud.